Reasons given by pregnant women for late initiation of antenatal care in Joe Gqabi district in the Eastern Cape province

by

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DECLARATION

I declare that the dissertation entitled *Reasons given by Pregnant Women for Late Initiation of Antenatal Care in Joe Gqabi District in the Eastern Cape Province* is my own work and that all the sources that have been used or quoted have been indicated and acknowledged by means of references and that this work has never been submitted for another degree in this or any other university.

LUTENDO GLADYS MUKWEVHO

ABSTRACT

Despite antenatal care services being provided free of charge in most countries, researchers have found that the vast majority of rural women register for antenatal care late and that the reasons for this may differ from those found in developed countries. Late antenatal attendance is linked to maternal and fetal mortality and morbidity. According to The *Saving Mothers Report 2015-2016,* most pregnant women are still booking late in rural areas: 64% of women in rural areas book after 20 weeks and 20% of those who book early do not complete their eight visits as recommended by WHO.

This study aimed to examine the reasons for late initiation of ANC booking among women presenting at an antenatal clinic. The study was conducted in antenatal clinics in the Joe Gqabi district in the Eastern Cape. This district is one of seven districts in the Eastern Cape and comprises the following four local municipalities: Elundani, Garep, Maletswai (Water Sisulu) and Senqu.

A cross-sectional quantitative research design was used to conduct this study. Data was collected by means of a self-administered, structured questionnaire. The structured questionnaire consisted of both open- and close-ended questions. The sample that made up the study was randomly selected from pregnant women presenting for booking after 20 weeks of gestation and who met the inclusion criteria. They were approached individually to participate in the study. Data analysis was undertaken with the assistance of a statistician.

The results indicate that most pregnant women in the rural areas initiate ANC after 20 weeks of gestation. It was found that a number of different reasons contribute to their late booking such as the midwives' attitude, distance to the clinic, poor infrastructure, unplanned pregnancy, lack of knowledge and poor socio-economic conditions. As a result of the findings it is recommended that we need to transition from the traditional approach of ANC to a focused antenatal care (FANC) model recommended by WHO.

Key concepts

Antenatal care, pregnant women.

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DEDICATION

I dedicate this study to my husband, Siphmandla Xela and my late father, Arroni Mbengeni Mukwevho.

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CHAPTER 1

1.1 Introduction and Background

Antenatal care (ANC) is a global initiative seen as preventative medicine to improve pregnancy outcomes (United Nations, 2015:29). Delayed access to ANC is linked to increased maternal and infant mortality rates (Maredza, Chola, & Hofman, 2016:12-14). Furthermore, the World Health Organization's (WHO) maternal mortality report has identified late booking as a significant risk factor for maternal death for all women on the continent (WHO, 2015:4). South African maternal guidelines also recommend that pregnant women should book their first antenatal visit before 20 weeks of gestation (Department of Health, 2016:4-6). In fact, good antenatal care attendance is determined by the date of first booking compared to the gestation (DOH, 2016:2), together with the number of visits to date of delivery.

The South African maternal mortality ratio stands at 83.3 per 10 000 live births and neonatal mortality is estimated at 79 per 1 000 live births (DOH, 2014:4). According to the *Saving Mother Report (2015-2016),* the following patient-oriented avoidable factors play a role: lack of antenatal care, infrequent antenatal care, delays in seeking health care, and unsafe abortions. These avoidable factors are estimated to account for approximately 39% of avoidable maternal deaths and 29,2% of avoidable neonatal deaths. The South African National Health Department has indicated that they are aiming at greatly decreasing maternal and neonatal mortality by 75% by the year 2020 (DOH, 2014:4-6). This is aligned with the WHO Sustainable Development Goal 3 which aims to ensure healthy lives and promote wellbeing for all at all ages by 2030 (Boucher, 2015:15).

According to *The Declaration of Alma Ata,* primary health care must be accessible to all individuals. However, research indicates that this is not always the case (Ghaffar & Pongpanich, 2015:7-8). Rural health is associated with poor provision of health care, non-availability of staff and poor infrastructure and limited working hours of public health facilities (Visagie & Schneider, 2014:8). To counteract this, the South African government has introduced programmes such as mother and child services, mom–connect, saving mother ambulance and mobile clinics. Despite the great efforts made by government, there is no proof that these programmes are effective in rural areas

(Munguambe, Boene, Vidler, Bique, Sawchuck, Firoz, Makanga, Qureshi, Macete, Menéndez, von Dadelszen & Sevene, 2016:85).

1.2 Research Problem

In South Africa ANC services are provided free of charge in all government institutions and at a minimal cost in private clinics. Nonetheless, late booking remains high and is associated with poor prenatal outcomes, one of the key problems among pregnant women in rural areas (Kawungezi, AkiiBua, Aleni, Chitayi, Niwaha, Kazibwe, Sunya, Mumbere, Mutesi, Tukei, Kasangaki, & Nakubulwa, 2015:135-140). In addition, maternal and infant death is linked to avoidable and manageable factors (Yeoh, Hornetz & Dahlui, 2016:10), for instance to inadequate care during pregnancy (Bin Nisar, Aurangzeb, Dibley & Alam, 2016:7).

Researchers have reported an increase in the birth-before-arrival (BBA) rate directly linked to late ANC booking (Alabi, O'Mahony, Wright & Ntsaba, 2015:365). The WHO reported an increase in infant death during 2013-2015 for those born at home and sudden collapse of unbooked mothers (WHO, 2013:10). BBA deaths are unnecessary and avoidable, yet this remains a health problem. Furthermore, late antenatal attendance makes it difficult to effectively implement prevention programmes such as prevention of mother-to-child transmission of HIV (PMCT) (Manani, Chaudhary, Baria & Joshi, 2015:6-8). Also, the World Aids Organization has reported an increase in HIV transmission from mother to child related to late antenatal booking (National DOH, 2015:8).

The Joe Gqabi district records a very low proportion of women who initiate ANC before 20 weeks of gestation according to an Eastern Cape municipal report in 2015. It is against this background that the researcher decided to investigate the reasons why women presenting at rural clinics of Joe Gqabi register late for ANC.

The study looked at the reasons given by pregnant women for late initiation of antenatal care in the Joe Gqabi district. The Joe Gqabi district is one of seven districts in the Eastern Cape and comprises four local municipalities - Elundani, Garep, Maletswai and Senqu. This district is mostly rural and it provides a good setting for this study due to recent reports of the high infant mortality rate in its health facilities. The

researcher believes that pregnant women from urban areas will have different reasons to those in rural areas for attending antenatal care late in their pregnancies, and it is these reasons that the study will explore.

1.3 Research Questions

- To what extent and in what ways is the place of residence responsible for late ANC booking?
- What are the reasons given by pregnant women for late booking?
- What effect does late booking have on pregnancy outcome?

1.4 Research Aims

- The aim of the study was to investigate the reasons for late initiation of ANC services by pregnant women in the Joe Gqabi district in the Eastern Cape.
- To assess the prevalence of late ANC bookings among pregnant women attending antenatal clinics in the Joe Gqabi district.
- To make recommendations to policy makers for the management of pregnant women thereby improving the quality of care.

1.5 Definition of Key Concepts

Antenatal care (ANC)

Antenatal care is an umbrella term used to describe care given to a pregnant woman before delivery (Fraser, Cooper & Nolte, 2014:231). The main goal is to provide education, counselling, screening, treatment and to monitor the wellbeing of the mother and fetus (DOH, 2016:4-5). In this study, antenatal care is the care given to pregnant women in the Joe Gqabi public health facilities.

Late booking

Late booking is defined as accessing ANC services after the first trimester of pregnancy, i.e. after 13 weeks of gestation (Department of Health, 2016:20-28). In this study late booking shall refer to pregnant women booking for ANC after 20 weeks of gestation and who have attended fewer than four visits.

Early initiation

Early booking can take place as soon as the first menstrual period is missed up to week 20 of the pregnancy (DOH, 2016:20-28). In this study early initiation shall refer to the first date the pregnant woman consults the midwife and a maternal case record file is opened before 20 weeks of pregnancy.

Pregnant woman

Pregnancy is a state in which a woman carries a fertilised egg inside her body that develops for at least 40 weeks (Fraser, Diane, Cooper & Nolte, 2014:10). In this study, a pregnant woman shall be a woman carrying a fetus or fetuses within her uterus and who resides in the Joe Gqabi district.

1.6 Research Design and Method

For the purpose of this study a cross-sectional quantitative design was used. This type of design provides a clear snapshot of the outcome and characteristics associated with late antenatal bookings (Polit & Beck, 2017:186). Moreover, the design was chosen because it allowed the researcher to collect data without introducing new treatment (Burns & Grove, 2015:212). In addition, it served as a suitable design to establish reasons for late initiation of antenatal care. Surveys are typically selected when information is to be collected from a large number of people or when answers are needed to a clearly defined set of questions. Surveys are good tools for obtaining information on a wide range of topics when in-depth probing of responses is not necessary (Polit & Beck, 2017:195).

1.7 Research Setting

The study was conducted in the Joe Gqabi district of the Eastern Cape in its antenatal clinic facilities. Joe Gqabi district records the lowest rate of women who initiate ANC after 20 weeks of gestation according to a municipal report from 2015. It is against this background that it was chosen as the study setting.

1.8 Population

A population is the aggregate or totality of objects, subjects or substance that meet certain criteria of specification (Grove & Gray, 2018:195). In this study the target population consisted of pregnant women of all races, age groups, educational status, and socio-economic status residing in the Joe Gqabi district in the Eastern Cape. These pregnant women would be attending ANC clinics in this district.

1.9 Sample and Sampling Methods

Sampling consists of selecting a subset of the population, event, and behaviours with which to conduct a study (Burns & Grove, 2015:342). The sample for this study was randomly selected from pregnant women attending two selected ANC clinics during the data collection period. All women who were present for booking after 20 weeks of gestation and who met the inclusion criteria were approached by the researcher to participate in the study. The respondents for the study were selected by random sampling and a targeted sample size of 30% of the monthly prevalence was used, giving a total of 90 respondents. However, since all women who met criteria were included and the monthly prevalence during data collection was high than expected, 120 respondents were included in this study.

1.9.1 Sampling technique

For this study, a sampling frame of 51 eligible clinics was used. The clinics were stratified according to how remotely they were located in the rural areas and the two top eligible clinics with the highest number of reported late ANC attendees according to a 2016 Eastern Cape municipal report were chosen. From these two clinics, all eligible pregnant women attending ANC later than 20 weeks were randomly selected. The list of pregnant women who booked antenatal care after 20 weeks of gestation was entered into a computer spreadsheet. The elements were assigned a random number and were also sorted by their random numbers; the computer then randomly selected participants until the desired sample was achieved based on confidence intervals and guidance by the statistician.

Inclusion criteria

- Being pregnant at the time of recruitment.
- Pregnant women over 18 years of age.
- Booking for ANC after 20 weeks of pregnancy at a Joe Gqabi publicly-funded clinic.
- Being able to give informed consent (verbal or written) and willing to participate.

Exclusion criteria

- Pregnant women attending ANC before 20 weeks.
- Pregnant women unable to give consent.
- Pregnant women unwilling to participate.

1.10 Data collection instrument

In this study, a pretested, preexisting structured questionnaire (Appendix F) adapted from a previous study conducted by Isaac Banda (2012) for his thesis was used to collect data directly from the participants. Isaac Banda developed the questionnaire to collect data on factors associated with late antenatal care attendance in selected rural and urban communities in the Copperbelt province in Zambia. The researcher adapted this questionnaire based on the similarity of the research concepts and the research problem of Banda's study.

Permission (Appendix C) to use the questionnaire was obtained from Isaac Banda. The questionnaire consisted of both closed and open questions. The questionnaire was divided into three sections: Section A which consisted of demographic information, Section B of reasons for late antenatal booking, and Section C of perceptions on antenatal clinics. The questionnaire was self-administered: Women who were able to read and write completed the questionnaires themselves while the rest were assisted by the researcher.

1.11 Pilot Study

For this study, ten questionnaires were administered at one clinic that was not selected for this study but which was located in the same district. The feedback helped refine the final version of the instrument. These responses were not included in the final results of the research.

1.12 Data Analysis

The researcher used descriptive statistics to provide answers to the research questions. Logic and deductive reasoning was used to analyse the completed questionnaires. Epi Info Version 3.5.3 was used to capture the data. In addition, analytic statistics were also used to display the data by using appropriate bivariate and multivariate analyses using the STATA Version 11.0 data analysis and statistical software. In order to achieve accurate data analysis a statistician was employed to analyse the data.

1.13 Reliability of Research Instrument

Reliability is the degree and consistency or dependability with which an instrument measures an attribute (Polit & Beck, 2017:741). Banda (2012) ensured reliability of the research instrument as follows:

- He used Cronbach's alpha - the Cronbach alpha range of 0.70 of this questionnaire shows that it is a reliable questionnaire. All the sections within the questionnaire have a reliability score over 70%, making the measuring instrument reliable.
- All participants were asked the same questions and were required to choose among the same set of alternative answers.
- Two field workers were chosen based on their education levels and were trained before the data collection process.
- A pilot study of the questionnaire was conducted to ensure the precision of the questionnaire.

1.13.1 Internal consistency

Internal consistency testing examines the extent to which all the items in the instrument consistently measure a concept (Burns & Groves, 2015:391). The implemented and executed research design will be described later in detail. The questionnaire that was used to collect the data was the same for all participants.

1.13.2 Validity of the research instrument

The validity of an instrument refers to the consistency in which it measures the attribute or concepts it is supposed to be measuring (Burns & Grove, 2015:198). In his study, Banda was consistent in the way the questionnaire was administered. He administered the questionnaire at the clinic and the participants completed it. After completing the questionnaires, they deposited them in a closed box to ensure their anonymity.

Content validity

Banda submitted his questionnaire to the Zambia biomedical research ethics committee to ensure its validity. In addition, the questionnaire was pre-tested in the non-participating facilities of Ndola and Mpongwe (Banda, 2012). For this study, the questionnaire was validated by involving experts in maternal and child health such as experienced midwives, advanced midwives and mother, child and women's health (MCWH) coordinators who gave their inputs before the tool was used. It was also reviewed by the research committee of the University of Johannesburg.

Face validity

Face validity refers to whether instruments look like they are measuring the target construct (Brink, van der Walt & van Rensburg, 2013:336). Face validity was ensured through consultation with experts such as experienced midwives, and the research supervisor who reviewed the items in the questionnaire and ensured that they measured the concepts they were supposed to measure.

1.14 Ethical Considerations

Ethics refers to a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal and social obligations with regard

to the study participants (Polit & Beck, 2017:753). In this study, ethical approval was obtained from the University of Johannesburg research ethics committee and the Joe Gqabi district municipality research committee. A letter was sent to the clinic managers to notify and inform them about the study and the proposed process of the study.

1.14.1 Right to self-determination

Self-determination is based on the ethical principle of respect for persons (Burns & Groves, 2015:164). In this study, each participant signed an informed consent form (Appendix A) before they were allowed to participate in the study. Each participant was encouraged to voluntarily participate, and was also informed that they could withdraw from the study at any given point without penalty (Brink, van der Walt & van Rensburg, 2013:62).

1.14.2 Right to privacy

Privacy is the right to determine the time, extent and conditions in which personal information can be shared or withheld from others (Babbie, 2013:78). In this study the participants' right to privacy was respected, and no interview reports or questionnaires were linked to any participant. The questionnaires were accessible only to the researcher and the statistician, and were kept under lock and key for the duration of the study.

1.14.3 Right to anonymity and confidentiality

The researcher ensured anonymity by making sure that the identity of the respondents could not be linked to their responses, even by the researcher (Burns & Grove, 2015:172). Moreover, patient names or numbers did not appear on the questionnaire, thereby assuring anonymity. Likewise, no private information was shared with others without the authorisation of the participants (Polit & Beck, 2017:180).

1.14.4 Right to fair treatment

The right to fair treatment is based on the principle of justice (Burns & Grove, 2015:173). In this study, the selection of the research respondents was based on the

research requirements, and not on the vulnerability or compromised positions of some people (Polit & Beck, 2017:180).

1.14.5 Right to protection from harm

The right to protection from harm is based on the ethical principle known as beneficence, which holds that one should do good and, above all, do no harm (Burns & Grove, 2015:174). For the purpose of this study, no serious anticipated effects were identified that could arise from participating in this study. However, previous obstetric history such as miscarriages and stillbirth could evoke emotional discomfort. The researcher thus conducted a debriefing season after data collection and any of the women who required emotional support could be referred to a clinical psychologist in the clinic.

1.15 Significance of the Study

The literature has generally indicated the importance and the benefits of ANC; however, more research needs to be conducted to understand the reasons for late antenatal attendance. This study took a unique approach in order to understand the reasons affecting antenatal care. The reasons associated with early and late booking are important in assisting planners of health education to develop effective health interventions for pregnant women and eventually improve the health status of women. The findings might also help to enhance the family and social support system for pregnant women in communities.

1.16 Scope of the Study

This study was conducted in the two targeted health facilities, one clinic located in a deep rural setting and the other in a semi-rural setting in the Joe Gqabi district in the Eastern Cape. Those who started antenatal care before 20 weeks were excluded from the study. Not many studies have been conducted regarding the late antenatal booking in the Joe Gqabi district local area and thus it was difficult to make comparisons and to examine differences in study findings. As a result, the results of this study cannot be generalised across the entire province or region.

1.17 Outline of the Study

In chapter 1 the following are introduced: the research topic and background, research problem, including the aims, objectives, definitions of key terms, research methodology, validity and reliability of the study, ethical considerations and the significance of the study.

Chapter 2 provides a literature review. This chapter gives an in-depth review of the literature related to the topic under study.

Chapter 3 deals with the research design and methodology. This chapter outlines the research methodology focusing on the research design, population, sampling, data collection, data analysis procedures and ethical considerations.

Chapter 4 covers the data presentation, analysis and interpretation.

Chapter 5 describes the conclusions, limitations and recommendations of the research study.

1.18 Conclusion

Chapter 1 sets the stage for this study by outlining the background regarding late antenatal care and the importance of early antenatal care. The chapter also underlines the fact that ANC services should be easily accessible so that pregnant women can obtain services early thereby satisfying the recommendations of the maternal guidelines in South Africa. The following chapter will provide a literature review pertaining to the chosen topic.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

A literature review examines published information in a particular subject area within a certain time period. In general, a literature review gives an understanding of what is known about a phenomenon and enables the researcher to identify any knowledge gaps (Burns & Grove, 2015:98). The literature review in this study aims to identify what is known about the reasons that pregnant women give for late initiation of antenatal care. Authors of different studies have agreed on factors associated with late entry to ANC such as place of residence, ethnicity, age, education, employment status, parity, intention to get pregnant, use of contraceptive methods, economic status, health insurance and travel time (Muhwava, Morojele & London, 2016:8).

2.2 South African Rural Health Care

The term “rural” invokes images of farms, villages, small towns and open spaces. According to a United Nations report (2016), the distinction between urban and rural is not amenable to a single definition that will be applicable to all countries. Many researchers also believe that rural is an area not considered urban in nature. These rural areas are associated with poverty and poorly funded infrastructures. Income poverty and inequality remains pervasive worldwide (WHO, 2016:150). Pregnancy and child bearing furthermore marginalises vulnerable women in rural South Africa by reducing income and introducing new financial burdens, such as costs associated with accessing health care, transportation and childcare for existing children (Kearns, Caglia, Hoope-Bender & Langer, 2016:543). Fewer women (57%) in the poorest rural communities attend ANC after 20 weeks compared to women in urban communities (DOH, 2016:24). Thus, a lack of ANC attendance remains a key cause of maternal death and mother-to-child transmission of HIV in rural South Africa (McGee, Chola, Tugendhaft, Mubaiwa, Moran, McKerrow, Kamugisha, & Hofman, 2016:12).

The majority of women in rural South Africa access health services through government-run public clinics and hospitals. According to the South African Constitution, every citizen has the right to access health care (Section 27 of the Bill of Rights). However, South African population indicators show that 64.7% of the all largely rural provinces do not provide access to quality health care (McGee, Chola, Tugendhaft, Mubaiwa, Moran, McKerrow, Kamugisha & Hofman 2016:12) Moreover, some of these rural health care facilities are not equipped to handle all the needs of the population. Study conducted in rural South Africa by Visagie & Schneider (2014:6) show that health care resources are unequally distributed among rural and urban communities. Thus, the availability and accessibility of health care is one of the determinants of health care use in South Africa, particularly in rural communities (Maredza, Chola, & Hofman, 2016:13).

In rural South Africa there is a high rate of migration of skilled workers, including health care workers, to urban communities. This means that rural areas are faced with a lack of specialized health care workers (Bourgeault, 2017:259). Rural antenatal facilities are run by basic trained midwives and often only receive once-off visitations from comserve doctors. These health professionals have little experience and training in maternal and child care. However, the South African government has introduced rural allowances since 1996 as a retention strategy of health care workers (DOH 2015:4). However, this strategy has not been effective in retaining trained health care workers, as they are still leaving the rural areas to find work in more urbanized areas (Brits, 2016:7). Workers still prefer to live in urban areas because of improved living conditions and available job opportunities. Unfortunately, this has a negative impact on rural residents and often high-risk pregnant women are forced to travel long distances to obtain specialized care. This scenario is a common problem in sub-Saharan African countries (Walton-Roberts, 2017:16).

2.2.1 Effectiveness of mobile clinics

Availability, affordability and accessibility of health care services have been identified as risk factors for late ANC attendance (Karvande, Sonawane, Chavan, & Mistry, 2016:7). The South African department of health has introduced the use of mobile clinics to rural areas with limited access to health care centres in order to increase access to health care (DOH, 2017:98). Mobile clinics can overcome barriers of time

and money in vulnerable communities. However, documentation of the implementation and effectiveness of mobile clinics in relation to maternal and neonatal outcome is weak (Nnebue, Ebenebe, Duru, Egenti, Emelumadu, & Ibeh, 2016:12). Moreover, mobile clinics have been associated with a lack of resources and stigma leading to a loss in the patient's dignity. A study conducted in rural Limpopo by Maputle, Lebese, Khoza, Shilubane &Netshikweta, 2013:132), reported that 78% of participants said that mobile clinics were not feasible as they did not visit at regular intervals due to poor road works, especially in the rainy season. In another study conducted in rural KwaZulu-Natal by McGee et al (2016:10), 39% of pregnant participants mentioned that mobile clinics lacked space for privacy, and often the primary care giver would nevertheless transfer the women to the main clinics in town due to a lack of resources.

2.3 Maternal and Infant Health

Maternal and infant mortality is unacceptably high in women living in rural and poor communities (Acharya, Lalwani, Dutta, Rajaratnam, Ruducha, Varkey, Wunnava, Menezes, Taylor & Bernson, 2015:146). It has been estimated that 30300 women die every year in Africa following pregnancy and childbirth (WHO, 2016). These women are mainly found in low-resource settings. Maternal and infant mortality reflects inequities to access health care services and furthermore highlights the gap between urban and rural communities (Dewana, Fikadu, Mariam & Abdulahi, 2016:5). This is evident in regions across the continent with low numbers of skilled health care workers. The situation is no different in South Africa where high mortality rates are found in its poor communities, Mpumalanga taking the lead in 2016. The WHO reported that 40% of all pregnant women between 2015 and 2016 in low-income countries had not received their recommended antenatal visits. To improve rural maternal health, the South African government has put in place tremendous efforts to improve service delivery such as Mom-connect, the Saving mother bus and mobile clinics. However, the effectiveness of these services is still unknown and thus there is no information available whether they have led to a reduction in maternal and infant mortality (Acharya, Lalwani, Dutta, Knoll Rajaratnam, Ruducha, Varkey, Wunnava, Menezes, Taylor & Bernson, 2015:150).

2.4 Antenatal Care in South Africa

ANC services are provided free of charge in public-funded health facilities from conception to labour (DOH, 2016:4). ANC within these facilities is guided by the South African maternal guidelines developed in 2015. The aim of the guidelines is to provide safe, quality and basic ANC, allowing early diagnosis and identification of risk factors, including management of pregnancy complications (DOH, 2016:15). According to the maternal guidelines, pregnant women should access health care as soon as they suspect the first missed period. Furthermore, it emphasises that the first ANC booking needs to be done before 20 weeks of gestation.

2.4.1 Benefits of antenatal care

According to the WHO (2016), good care during pregnancy is for the benefit of the mother and the unborn child. This view is supported by a study conducted in Nigeria in 2016, where 85% of women believed that ANC care would help protect their unborn babies (Akeju, Oladapo, Vidler, Akinmade, Sawchuck, Qureshi, Solarin, Adetoro & von Dadelszen, 2016:64). Thus, ANC helps as follows:

- It helps firstly as a pregnancy confirmation, ruling out the possibility of an ectopic pregnancy.
- Early detection of complications such as preeclampsia, diabetics and placenta complication can take place.
- Vitamins and supplements can be provided to improve fetal and maternal wellbeing.
- It can monitor fetal growth, vaccinations and provide information on caring for the unborn baby.
- For improved maternal and child health all pregnant women are offered HIV testing as early as possible. This makes it possible for women who test positive to initiate preventive intervention early and substantially reduce the risk of transmitting the infection to their newborn babies.

2.4.2 Prevention of mother-to-child transmission of HIV

One of the biggest benefits of ANC is the prevention of mother-to-child transmission of HIV (PMCT). According to the South African maternal guidelines of 2016, all women

should be tested at their first booking, repeated at 32 weeks and during labour regardless of when she last tested. However, even though PMCT offers real practical benefits, HIV testing has been reported as a barrier to ANC booking. In a study conducted in Kenya by Ndege, Washington, Kaaria, Prudhomme-O'Meara, Were, Nyambura, Keter, Wachira & Braitstein (2016:8), 45% of participants avoided ANC booking due to fear of being tested for HIV. In another study by Yeoh, Hornetz & Dahlui (2016:15), participants reported that they needed permission from their husbands before allowing HIV testing. The same study also found that women saw no benefit in knowing their status early during pregnancy as they believed the unborn child was already infected. Another study came to the conclusion that lack of knowledge and misconceptions around HIV were possibly responsible for such beliefs (Ndege, Washington, Kaaria, Prudhomme-O'Meara, Were, Nyambura, Keter, Wachira & Braitstein, 2016:6).

2.4.3 Ignorance and misconception of ANC benefits

Several authors have highlighted ignorance and misconceptions as important barriers to ANC bookings. Antenatal care is still viewed as curative rather than preventive health care (Ghaffar, Pongpanich, Ghaffar, Chapman & Mureed, 2015:650). In a study conducted by Nnebue, Ebenebe, Duru, Egenti, Emelumadu & Ibeh (2016:16), participants believed that health care facilities should only be consulted when one is sick. Pregnant women waited for minor ailments in pregnancy before they visited antenatal facilities (Karvande, Sonawane, Chavan & Mistry, 2016:6). Women saw no benefit in booking early for ANC with regard to their pregnancy and unborn infant (Bin Nisar, Aurangzeb, Dibley, Alam, & Nisar, 2016:5). A number of studies conducted in Africa confirm that the majority of women remain ignorant in terms of the best timing for an ANC booking (Maredza, Chola & Hofman, 2016:12).

2.5 Reasons for Late Antenatal Attendance

Certain reasons can be affect people's decision making to take particular actions. However, immediately when one acknowledges their own capacity to deal with barriers they begin to take necessary steps (Hatherall, Morris, Jamal, Sweeney, Wiggins, Kaur, Renton and Harden 2015:01). Similarly, pregnant women can identify reasons preventing them from booking antenatal care as soon as a missed period.

Documented reasons for late first ANC presentation include lack of education, attitudes and knowledge regarding pregnancy, being unmarried, history of obstetric complications, and cultural beliefs. Availability, affordability and accessibility of health care services have also been identified as reasons for late ANC presentation.

2.5.1 Planned and unplanned pregnancy

Pregnancy that is unwanted at the time of conception is associated with a late start to antenatal care and fewer visits compared to a pregnancy that is wanted (Ochako & Gichuhi, 2016:5-6). Ochako and Gichuhi (2016) in a study they conducted on pregnancy wantedness, frequency and timing of antenatal care visit among women of childbearing age in Kenya reported that, 43% of women were in denial about their pregnancy, they showed anger towards their partner and self for falling pregnant. Respondents were faced with the biggest decision of their life whether to keep or terminate the pregnancy. Therefore, making use of antenatal care is strongly determined by the woman's attitude towards her pregnancy (Tekelab & Berhanu, 2014:113). Unplanned pregnancies such as in the case of teenagers, unmarried and raped women may have a negative impact on these women (Soon, Elia, Beckwith, Kaneshiro, & Dye, 2015:168).

Contrary, Soon et al., conducted a study on unintended Pregnancy in the Native Hawaiian Community, showed that planned pregnancy tends to have a high rate of early ANC booking. Majority of women with planned pregnancy were proud of their ability to conceive and the unborn baby. These women booked early because they believed that antenatal care will give them assurance that their pregnancy was safe.

2.5.2 Age and parity

Maternal age and parity can be either a negative or a positive influence in terms of using ANC services (Yeoh, Hornetz, & Dahlui, 2016:16). Primigravidas is about two times more likely to be booked for ANC compared to multigravidas (Gudoy, Woldeyohsnnes & Albdo, 2014:4-5). However, lack of familiarity with the signs of pregnancy also prompted uncertainty. Munguambe, Boene, Vidler, Bique, Sawchuck, Firoz, Makanga, Qureshi, Macete, Menéndez, Von Dadelszen, & Sevene (2016:90-95)., conducted a study on barriers and facilitators to health care seeking behaviours

in pregnancy in rural communities of southern Mozambique discovered that, first time mothers lacked knowledge on pregnancy signs, 24% of teenage mothers intentionally delayed booking for ANC due to lake of awareness on pregnancy signs and fair to disclose to parents. The authors further discovered that promiscuous teenagers and elderly women also delayed booking due to community shame and not knowing the father of the unborn child.

Conversely, a study conducted in Uganda in 2015 found no significant differences between adolescents and adults in terms of how early they attended ANC (Kawungezi, AkiiBua, Aleni, Chitayi, Niwaha, Kazibwe, Sunya, Mumbere, Mutesi, Tukei, Kasangaki & Nakubulwa, 2015:139). Gebremeskel, Yohannes and Admasu (2015:7) conducted a study in Ethiopia on timing of first antenatal care attendance and associated factors among pregnant women, identified that women of high parity booked late because of previous experience, second time mothers felt confident about their pregnancy and reported familiarity with antenatal care services offered and viewed this services as unbeneficial, unnecessary and time wasting.

2.5.3 Education and knowledge

Educated women tend to be more informed and knowledgeable, they bear fewer children and when encountered with health problems they seek help quicker (Yeoh, Hornet & Dahlui, 2016:15). Further identified that 69% of pregnant woman who were educated viewed early booking as important and benefited them and unborn baby. Likewise, insufficient knowledge about ANC and its benefits negatively influences the initiation of ANC. Nonetheless, one study found that women attended ANC late because of their inability to recognize pregnancy signs early and their lack of knowledge on the importance of ANC, uneducated woman were ignorant about the benefits of early booking (Zubair & Mohammed, 2015:17-19). In another study done by Maredza, Chola & Hofman (2016)., 82,6% of pregnant women initiated antenatal care late, this was due to the fact that majority of pregnant women had no education and only attained primary school.

2.5.4 Cultural influence

A woman's cultural beliefs also determine the appropriate time for her to disclose her pregnancy and initiate ANC care. For instance, a woman may disclose in her second trimester to avoid being affected by witchcraft that could harm her pregnancy (Muhwava, Morojele, & London, 2016:6-7). In a study conducted in a Pakistani village in 2016, it was found that the majority of respondents reported that they received advice from elders on when to start visits for antenatal care and when the pregnancy was no longer in danger of being affected by witchcraft (Bin Nisar, Aurangzeb, Dibley, Alam & Nisar, 2016:5). Cultural interpretations of threats in western medicine use has been reported to influence ANC booking. Ghaffar, Pongpanich, Ghaffar, Chapman & Mureed (2015), conducted a study on expediting support for the pregnant mothers to obtain antenatal care at public health facilities rural areas, discovered that 38% of woman reported that they booked late due to fear of been given western medicine that will be harmful to their unborn. They added that, western medicine was against their culture. In conclusion, the above study concluded that women of high cultural background tend to book late than women of low cultural back ground.

2.5.5 Socio-economic status

Financial considerations play a major role in antenatal attendance. In western countries women are required to have health insurance (Kearns, Caglia, Hoope-Bender, & Langer, 2016:549). However, this is not the case in South Africa as public antenatal clinics are free. In a study by Andrew, Pell, Angwin, Auwun, Daniels, Mueller, Phuanukoonnon and Pool (2014) it was found that women do not attend ANC due to work-related issues, financial constraints as well as the fact that in many cases if privately employed the women would have to take unpaid leave. Moreover, it was found that 68% women did not attend ANC due to a total lack of money and having to travel long distances which was often costly. However, a study conducted in India (2016) by Karvande, Sonawane, Chavan & Mistry found out that, 93% of employed women booked early for ANC, respondents believed booking early showed concern about issues that affect their lives. Contrary, 52% of unemployment women reported that, their families' dependent on them for daily sustenance, women underutilize maternal services due to excessive demand on their money.

2.5.6 Attitude of health care providers

In South Africa, nursing is generally viewed as a profession associated with qualities of care, concern, and comfort. However, the reality is often far removed from this view (McGee, Chola, Tugendhaft, Mubaiwa, Moran, McKerrow, Kamugisha & Hofman, 2016:4-5). Health providers often work under very harsh conditions which may put strain on their emotional reserves; moreover, nurses in the public sector have been described as using humiliation, verbal abuse, and even physical violence to assert their authority and control over patients (Roberts, Sealy, Marshak, MandaTaylor, Gleason & Mataya, 2015:145). This type of behaviour by nurses toward patients has been identified as ethically unacceptable as well as an important barrier for mothers who would otherwise want to initiate ANC. Mkhari & Mathibe-Neke (2016) conducted a study on factors contributing to late antenatal care booking at Thulamahashe local area at Bushbuckridge sub-district in Mpumalanga Province discovered that, 74% of participants identified dissatisfaction with care they received and uncaring nurses, participants reported negative attitude in their previous pregnancy, nurses judged them for poor child spacing, unemployment and been HIV positive this resulting to them avoiding ANC.

2.5.7 Accessibility of antenatal care services

In South Africa, the apartheid system created patterns of inequality in terms of race, gender and geographical disparities which still exist to a large extent today (DOH, 2016:67). As a result, the health services between urban and rural areas are unequally distributed (Kawungezi, 2015:133). Kawungezi et al., in his study concluded that participants reported high late ANC booking due to poor infrastructure, lack of privacy, overcrowding and lack of medical supplies, participants showed frustrations of been referred to town clinic further away from their homes, thus increasing transport burdens. Rural communities experience significant barriers to accessing health care such as inadequate transport to clinics and long distances that need to be travelled to get to the nearest health facility. According to a study in KwaZulu-Natal, distance is a significant factor that prevents or delays people in seeking care from health facilities (McGee, Chola, & Tugendhaft, 2016:12-13).

2.6 Conclusion

Chapter 2 provided a literature review of the topic. It is clear that low and middle income countries still experience late ANC booking. The literature also suggests that inaccessibility and unavailability of services, poor attitude of service providers, stigma, and discrimination are some of the known reasons why pregnant women do not make proper use of ANC. Nonetheless, even though the literature is limited in this regard, especially with regard to the South African context, a number of studies have been conducted in comparable countries in Africa and Asia. The next chapter will focus on the research methodology.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Chapter 3 provides a detailed description of how, when and which research design and methodology were used in the study. It starts of by explaining the research design and methods used, including the study population and eligibility criteria, sample size, sampling technique, method of data collection, data analysis, validity and reliability of the research instrument and ethical considerations. The aim of the study was to find out the reasons that pregnant women give for late initiation of antenatal booking at selected Joe Gqabi clinics in the Eastern Cape province.

3.2 Research Design

The researcher used a quantitative, non-experimental, descriptive cross-sectional design in order to examine the reasons given by pregnant women for late initiation of antenatal booking. Research design is known as a blueprint for conducting a study with the aim of maximising control over any factors that will interfere with the validity of the findings and the conclusion (Polit & Beck, 2017:200-222). Burns & Grove (2015) point out that a good research design helps the researcher to obtain the intended and real results. Furthermore, it is a work plan that will ensure that the evidence that is obtained will enable the researcher to answer the research question.

3.2.1 Descriptive design

Descriptive research designs are crafted to provide an accurate and valid representation of the factors or variables that are relevant to the research question (Burns & Grove, 2015:502). They focus more on the end product of the study and evidence required to address the research question adequately. Descriptive research may be used to justify current practice and make judgement and also to develop theories (Grove & Gray, 2018: 54). The main idea behind using this type of research

is to better define an opinion, attitude or behaviour held by a group of people on a given subject. The purpose of this study was to describe, or make an attempt to discover facts about the reasons given for late antenatal booking in the Joe Gqabi district. This study gives a descriptive summary of the responses of all the relevant items obtained from the participants.

3.2.2 Quantitative research paradigm

A quantitative research was used in this study. Polit and Beck (2017:763) refer to quantitative research as an investigation of phenomena, using precise accurate measurement and quantification, and the research design is controlled and rigorous. The researcher used a quantitative research method based on the following unique traits of such a study:

- Highly structured in nature.
- A flow of predetermined stages.
- Data collection is achieved through the use of predetermined procedures and pre-tested instruments.
- Maximum control over data collection and the ability to achieve uniformity.
- Statistical analysis to be conducted after data collection (Regionel, 2015:2).

Another reason for adopting a quantitative approach was that this method involves systemic collection of numeric and categorical quantitative data. Data obtained in this study was seen to be rooted in objective reality and gathered through the senses, and therefore the findings are grounded in reality rather than in the researcher's personal beliefs. Analysis of data was done using statistical procedures (Grove & Gray, 2018:230).

3.2.3 Non- experimental approach

Non-experimental research is defined as any kind of quantitative or qualitative research that is not an experiment. According to Polit and Beck (2017), in a non-

experimental design there is no manipulation of the independent variable, and therefore there is no intervention, nor is the setting controlled.

3.2.4 Cross-sectional studies

This study used a cross-sectional survey. Survey research is defined by Burns and Groove (2015:195) as involving the administration of a questionnaire to a sample or an entire population to determine the attitudes, values, behaviors and characteristics of the group being studied. Survey research is known as descriptive research because the results depict the way things are. Comparison of sub-groups is a common feature of survey research. A cross-sectional survery involves the collection of data at a specific time and which is then used by the researcher to learn about a particular group of people, evaluate a programme or conduct a community needs assessment. According to Polit and Beck (2017:186), cross-sectional studies are economical, less time-consuming and use questionnaires, personal and telephonic interviews as data collection methods. For the purpose of this study, a cross-sectional design was thus used and data was obtained by means of a questionnaire (Appendix F).

3.3 Research Method

3.3.1 Population

A population is the aggregate or totality of objects, subjects or substance that meet certain criteria or specifications (Babbie, 2013:98). In this study the target population was pregnant women of all races, age groups, educational status, and socio-economic status residing in the Joe Gqabi district in the Eastern Cape. These pregnant women attended ANC in public funded clinics.

3.3.2 Sampling

Burns and Grove (2015:342) refer to sampling as selecting a subset of the population, event, and behaviours with which to conduct a study. The sample of this study was selected from women who came to the clinic for antenatal care during the data

collection period and who had started antenatal care after 20 weeks of gestation and were 18 years of age and older. Simple random sampling was used which ensured some degree of precision in estimating some population parameters. Every member of the population had an equal chance of being included in the sample and this allowed the researcher to estimate the magnitude of sampling error.

3.3.2.1 Sampling technique

For this study, a sampling frame of 51 eligible clinics was used. The clinics were stratified according to how remotely they were located in the rural areas and the two top eligible clinics with the highest number of reported late ANC attendees according to a 2016-2017 Eastern Cape municipal report were chosen. Walter sisulu and Senqu local municipality were choosen.

The Walter Sisulu Local Municipality is a Category B municipality (Area:13 269km²) located in the west of the Joe Gqabi District in the Eastern Cape Province, south of the Orange River and Gariep Dam. The municipality is the largest of the three in the district, making up half of its geographical area. The municipality fall 2nd within its district with late antenatal attendance and increase neonatal death. Block H clinic in Walter sisulu sees the highest number of pregnant woman according to joe Gqabi municipal report 2016-2017. The Senqu Local Municipality is a Category B municipality (Area:7 329km²) situated in the Joe Gqabi District in the Eastern Cape Province. It is bordered by Lesotho in the north, the Chris Hani District in the south, Elundini in the east, and Walter Sisulu in the west. The municipality is one of three in the district, accounting for a third of its geographical area. Senqu is reported with the highest number of late antenatal attendance and contributing 1st in neonatal and maternal mortality rate of Joe Gqabi according 2016-2017 municipality statistical report. Sterkspruit town clinic sees the highest number of patients. It is against this background that the two local municipalities were used for data collection for this study.

Between 15 and 25 pregnant women attended antenatal care each day at the Walter Sisulu Block H clinic during the course of this study. Of these, six to 12 started antenatal care only after 20 weeks of gestation. Senqu-Sterkspruit town clinic saw

about 20 to 30 pregnant woman daily; from this number ten to 15 started after 20 weeks of gestation. Since the number of women seen after 20 weeks was small in both clinics, all eligible pregnant women were included in the study. The probability sampling technique was applied as each person or element had an equal opportunity to be selected in a sample and this increases the sample's representativeness of the target population (Burns & Grove, 2015:257). Probability sampling was deemed the best selection method as it was impossible to randomise a smaller number seen in each visit. Therefore, all eligible pregnant women attending ANC after 20 weeks were asked to participate.

3.3.2.2 Sample size

With regard to the data gathered in Joe Gqabi between 1 April 2017 and 31 June 2018, the total number of recorded antenatal visits for this district amounted to 7 896. Of these, 3431 booked after 20 weeks of gestation. A proportional formula was used to calculate the sample size, considering the prevalence of late antenatal booking and the 95% confidence interval was used to calculate the sample size (Polit & Beck, 2017:407). The estimated number of women pregnant who attended the ANC clinic per month after 20 weeks 250 (6 to 8 women x 5 days in a week). Simple random sampling, which is a probability sampling method, was used to select women to participate in the study because the sampling frame was small per day. The proposed sample for the study was 90 women, however since all eligible respondents were included, the total sample size for this study was 120.

Name of facility	**Number of participants**
Walter-Sisulu Block H clinic	36
Senqu-Sterkspruit town clinic	84
Total number of participants	**120**

3.3.2.3 Sampling criteria

Eligibility criteria are the criteria designating the specific attributes of the target population by which people are selected for inclusion in a study (Polit & Beck,

2017:274). According to Burns and Grove (2015), eligibility criteria include a list of characteristics essential for eligibility or membership in the target population. The exclusion criteria are those characteristics that can cause an element to be excluded from the target population.

Inclusion criteria

• Pregnant women who started antenatal care after 20 weeks of gestation.

• Pregnant women above 18 years of age.

• Pregnant women who gave their informed consent in writing.

Exclusion criteria

• Pregnant women who started antenatal care before 20 weeks of gestation.

• Pregnant women below 18 years of age.

• Pregnant women who were too sick to participate in the study.

• Eligible respondents unable or unwilling to give consent.

3.3.3 Data collection

According to Burns and Grove (2015:63), data collection involves the precise and systematic gathering of information relevant to the research purpose or objectives, questions or hypothesis of a study. Polit and Beck (2017:725) state that data collection is the gathering of information to address a research problem.

3.3.3.1 Data collection approach and method

For this study a structured questionnaire (Appendix F) was used to collect data after obtaining permission from the participants. The use of a structured questionnaire ensures that similar data is obtained from all participants. The disadvantages of a structured questionnaire are that they limit participants in their responses, and rarely probe deeply into their feelings and thoughts. However, in this study some open-ended

questions were included in order to obtain some responses in the participants' own words and thoughts.

Data was collected using a pre-existing questionnaire (Appendix F). Self-administered questionnaires were given to the participants to complete. Self-administered questionnaires are questionnaires where the participants are requested to complete the questionnaires on their own and are under the supervision of the researcher. The questionnaires were checked before participants left the clinic to make sure that all questions were answered.

3.3.3.2 Data collection instrument

A structured questionnaire (Appendix F) was used to collect data after obtaining permission from the participants (Appendix A). Data collection for quantitative research is pre-planned and indicates the type of information to be collected. Structured questionnaires require a lower cognitive load on the respondent by reducing the amount of thinking needed to complete the task. However, such structured methods tend to limit the respondents to a fixed set of questions with a set of predetermined responses. They also have limited opportunity to explain their responses; however, the data is relatively easy to analyse (Polit & Beck, 2017:297).

3.3.3.3 Characteristics of data collection instrument.

A pre-existing structured questionnaire (Appendix F) adapted from a previous study conducted by Isaac Banda (2012) was used. Permission (Appendix C) to use the questionnaire was obtained from him. The questionnaire consisted of four sections, with a total of 23 questions. The questionnaire was in English; however, an interpreter was made available for those who did not understand English to translate the questionnaire into a language they understood. The questionnaire consisted of both open- and close-ended questions. The open-ended questions allowed people to respond in their own words in a narrative fashion whereas the closed-ended questions gave the respondents an opportunity to choose an option from a given set of answers that most closely matched their view (Brink, van der Walt & van Rensburg, 2013:134).

3.3.3.3 Pilot study

A pilot study of the questionnaire was conducted. A pilot study is an important stage in the research process and is conducted to identify potential problem areas and deficiencies in the research instruments and protocol prior to the implementation of the full study. It also helps the researchers to familiarise themselves with the research procedure.

One of the most efficient ways to find out how good a questionnaire is, is to pre-test it with a group of respondents who have the same characteristics as those involved in the study (Burns & Grove, 2015:168). Ten questionnaires were thus administered at a clinic not selected for the study but located in the same district. Participants' feelings and thoughts about the questionnaire items were captured, and the feedback from the participant's responses was captured. The feedback was then integrated into the final version of the instrument, some of the questions were removed in the existing questionnaire.

3.3.3.4 Data collection process

Permission to collect data was sought and granted by the University of Johannesburg Health Studies Higher Degree Committee (Appendix D), the Research and Ethics Committee in the Eastern Cape (Appendix E), and the Joe Gqabi district manager (Appendix E). Pregnant women who booked for the first time after 20 weeks of gestation and pregnant women with subsequent visits who had started antenatal care after 20 weeks of gestation were sampled. For every woman selected, the researcher and the two field workers explained the study fully, written consent was sought from the respondents and they were assured of anonymity and confidentiality. The questionnaires were completed while the respondents were waiting in the queue to be seen by the midwife. This was done to minimize their waiting time. The questionnaires were completed in the clinic under the supervision of the field workers and researcher, this was to ensure that the selected respondents were indeed the ones who filled in the questionnaire. During the process of data collection, the field workers assisted with distribution of questionnaires, offered guidance and clarity to respondents during completion of questionnaire.

The two clinics were visited during the week between 08h00 to 16h00. The researcher visited Walter Sisulu clinic twice a week as it was not busy and the clinic used an

appointment system where first-time visits are only seen on Tuesdays and Wednesdays. More time was spent in Senqu-Sterkspruit town clinic because the clinic saw more pregnant women each day and no appointment system is used. The clinic manager introduced the researcher each morning, informing all pregnant women attending ANC on that particular day about the study. For every woman selected, the researcher described the study fully (aims, benefits, costs and risks of the study) and answered their questions about the research. Written consent was sought from the respondents.

3.3.4 Data analysis

Data analysis is the systematic organisation and synthesis of research data to give meaning to the data (Burns & Grove, 2015:43). The analysis was based on the completed questionnaires from each respondent from the two clinics. Each questionnaire was given a unique number to facilitate error tracking where necessary. An excel spread sheet was used for the exploration and analysis of the data. The data was checked for errors and cleaned. The spread sheet was imported to STATA Statistical Analysis software for editing and analysis. Descriptive statistics were used to summarise the data through the use of measures of central tendency and dispersion. The researcher used frequency tables and percentage distribution to describe the results, as well as inferential statistics, Pearson's r, Chi-square test and Fisher's exact test for comparison. A p-value of less than 0.5 was considered statistically significant.

3.4 Validity of the Research Instrument

Burns and Groves (2015) define validity as the degree to which an instrument measures what it is supposed to be measuring. It is the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration (Babbie, 2013:142).

3.4.1 Internal validity

Internal validity is defined by Burns and Grove (2015:222) as the “extent to which the effects detected in the study are a true reflection of reality rather than the result of extraneous variables”. The questionnaire was reviewed by the University of Johannesburg Health Studies Higher Degree Committee, the Eastern Cape Research Committee and experts in maternal and child health such as experienced midwives. The questionnaire was piloted on ten antenatal respondents who started antenatal care after 20 weeks of gestation at a clinic not included in the study. In addition, the internal validity of the study was enhanced by the use of probability sampling, which eliminated selection bias, thus creating a representative sample of the population under investigation.

3.4.2 External validity

External validity is the extent to which the conclusions drawn from the study can be generalised to the population under consideration (Polit & Beck, 2017:287). This was not possible because the sample size was small, and thus the results cannot be generalised.

3.4.3 Reliability of research instrument

Reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to be measuring, and refers to whether a particular technique applied repeatedly to the same object yields the same result each time (Grove & Gray, 2018:140). The use of a clearly worded structured questionnaire for the study was deemed to provide reliability. All participants were asked the same questions and were required to choose among the same alternative answers. Further probing by the researcher was discouraged to prevent interviewer bias. A pilot study of the questionnaire was conducted to ensure the instrument’s precision.

3.5 Ethical Considerations

Ethics refers to a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal and social obligations towards the study participants (Polit & Beck, 2017:753). Ethical clearance was obtained from the

Research and Ethics Committee at the University of Johannesburg's Department of Health Studies (Higher Degrees Committee). The study was conducted after obtaining permission to do so by the Research and Ethics Committee in the Eastern Cape province, the Joe Gqabi sub-district manager and the supervisor.

3.5.1 Right to privacy

Privacy is the right to determine the time, extent and conditions in which personal information can be shared or withheld from others (Brink, van der Walt & van Rensburg, 2013:134). The researcher used the data collected from the respondents only for the purpose of this study. Participants were given the right to determine the time, extent, and circumstances under which their personal information may be shared with or withheld from others.

3.5.2 Right to anonymity and confidentiality

Anonymity exists if the subject's identity cannot be linked, even by the researcher, with their individual responses (Burns & Groove, 2015: 172). Each questionnaire was given a unique number to facilitate tracking; and no patient names or numbers appeared on the questionnaire. Participants were informed to share personal information to the extent they wished and were entitled to keep their secrets. Information collected was kept confidential, only the researcher and statistician had access to the questionnaires.

3.5.3 Right to fair treatment

Right to fair treatment is based on the principle of justice (Burns & Grove, 2015:198). This principle holds that each person should be treated fairly and should receive what they are due or owed. In this study, the selection of participants was based on the research requirements, and not on the vulnerability or compromised positions of the participants. All the participants were given an equal chance to participate in the study by allowing all eligible women to fill in the questionnaire.

3.5.4. Right to self-determination

Self-determination is based on the ethical principle of respect for person (Burns & Groves, 2015:164). The right to self-determination and full disclosure was protected. The respondents were given all the details of the study and were asked to sign an informed consent form (see Appendix B) as a confirmation that they were provided with relevant information and that they were participating voluntarily (see Appendix A & C).

3.5.5 Right to protection from harm

The right to protection from harm is based on the ethical principle known as beneficence, which holds that one should do good and, above all, do no harm (Burns & Grove, 2015:174). The participants were not subjected to any harmful effects. The respondents were protected from exploitation and they were assured that their participation or information they provided would not be used against them. In addition, the respondents were given the option to voluntarily participate or to drop out at any point if they wished to do so. The researcher held a debriefing season after data collection but none of the participants required a referral to a clinical psychologist after participating in the study.

To ensure scientific honesty on the part of the researcher, no plagiarism was committed, and all sources of information have been acknowledged. In addition, the researcher was aware of being objective during the data collection and the subsequent analysis.

3.6 Conclusion

Chapter 3 discussed the research methodology used in the study which included the research design, sampling, data collection, validity and reliability, data analysis and ethical considerations.

CHAPTER 4

ANALYSIS, PRESENTATION AND DESCRIPTION OF THE RESULTS

4.1 Introduction

Chapter 4 presents the study results. The aim of the study was to investigate the reasons given by pregnant women for late initiation of ANC booking in the Joe Gqabi district in the Eastern Cape. The purpose of this study was in line with BANC and the South African maternal guidelines of 2016 which recommend ANC to be started in the first trimester of pregnancy. The researcher had planned to collect data from 90 participants. However, 120 participants took part in the study. This was because all eligible pregnant women were included in the study.

4.2 Data Management and Analysis

The sample size was 120 pregnant women who started antenatal care after 20 weeks of gestation, who were 18 years and older and met the eligibility criteria. Data was collected using a pre-existing structured questionnaire which consisted of both close- and open-ended questions. A response rate of 100% was obtained. This was achieved because the researcher was always on site collecting data from the pregnant women while they waited to be attended by the midwife. An excel spreadsheet was used for the exploration of the data; the spreadsheet was then imported to STATA analytical software for editing and analysis.

4.3 Sample Characteristics

Table 1 below tabulates the socio-demographic characteristics of the pregnant women who participated in the study. A total number of 120 women attending the antenatal clinics after 20 weeks' gestation participated in the study. All of the participants were rural dwellers, distributed between two sub-districts: 78% from Senqu (n=84) and 30% from Walter Sisulu (n=36). In general, most of the respondents were between 18 and 20 years of age, representing 55.5% of pregnant women in Walter Sisulu and 64.3%

in Senqu. The age was of significance in this study to try and find if it has an effect in late antenatal care booking.

Both districts showed a high number of unmarried women: 50% in Senqu and 52.7% in Walter Sisulu. This is supported by a study conducted in Kenya by Ochako & Gichuhi (2016:5), on pregnancy wantedness, frequency and timing of antenatal care visit among women of childbearing age concluded that there was a higher rate of single parent families and 60% of the respondents were single, divorced or unmarried and lacked support from husbands or partners which might be the case in this study as the majority are unmarried for both district.

Regarding the unemployment level of participants, 67.9% were unemployed in Senqu compared to 22.2% in Walter Sisulu. This is supported by a study conducted in Uganda by Kawungezi, AkiiBua, Aleni, Chitavi, Niwaha, Kazibwe, Sunya, Mumbere, Mutesi, Tukei, Kasangaki & Nakubulwa (2015:140) on attendance and utilization of antenatal care services concluded that most 57,7% of respondents who started antenatal care after twenty weeks of gestation were housewives and unemployed. For this study it can be concluded that pregnant woman dependent on someone financially.

Few of the participants in this study were Christians: 34.5% in Senqu and 13.1% in Walter Sisulu. The majority of the participants in this study believed in African traditional beliefs in both areas. This finding is supported by cross-sectional survey conducted in rural and urban South Africa by Muhwava, Morojele & London (2016:7) on psychosocial factors associated with early initiation and frequency of antenatal care stated that religious belief strongly determined antenatal attendance, with 46.7% of respondents believed in African ancestral belief waited for a sign from ancestors to book for antenatal care, when pregnancy is safe from witchcraft.

Furthermore, secondary school was the highest level of education attained by the participants in Senqu (40.5%) while the majority of the participants in Walter Sisulu (52.8%) attained college/university level. The study conducted in Ethiopia by Gebremeskel, Yohannes and Admasu (2015:7) on timing of first antenatal care attendance and associated factors among pregnant women revealed that 82,6% of pregnant women initiated antenatal care late, this was due to the fact that majority of pregnant women had no education and only attained primary school.

Table 1: Socio-demographic characteristics of participants (n=120)

Characteristics	Water Sisulu n (%)	Senqu n (%)
Participants	36	84
Ages		
18-20 yrs.	20 (55.5%)	54 (64.3%)
20-29 yrs.	6 (16.7%)	12 (14.3%)
30 and older	10 (27.8%)	18 (21.4%)
Marital status		
Married	9 (25%)	34 (40.5%)
Single	19 (52.7%)	42 (50%)
Divorced	8 (22.2%)	7 (8.3%)
Windowed	0	1 (1.2%)
Employment status		
Employed	28 (77.8%)	27 (32.1%)
Unemployed	8 (22.2%)	57 (67.9%)
Religion		
Christian	31 (86.1%)	29 (34.5%)
African belief	5 (13.9%)	55 (65.5%)
Level of education		
Never been to school	2 (5.6%)	16 (19%)
Primary	4 (11.1%)	24 (24.6%)
Secondary	11 (30.5%)	34 (40.5%)

College/university	19 (52.8%)	10 (11.9%)

4.4 Obstetric History

Table 2 tabulates the obstetric characteristics of the women who participated in the study. The majority of participants in both districts were first-time mothers(primigravidas): 59.5% in Senqu and 77.8% in Walter Sisulu, followed by women who had no children (either due to miscarriage or abortion): 61.9% in Senqu and 75% in Walter Sisulu. Among all the age groups, parity had a significant contribution as a single factor for late attendance among the pregnant women, the results are similar to the results of the study conducted in Ethiopia by Yilala (2015:44) on assessment of late initiation of antenatal care and associated factors among antenatal attendees in selected health centers of Addis Ababa which concluded that 94.6% of the respondents had pregnancies before and started antenatal care late due to experience of pregnancy compared to women who had no previous experience of pregnancy. Hence, in this study the last child of most of the participants was aged 3 or older in Senqu. Whereas in Walter Sisulu the last child of the participants was between the ages 1 and 2 years.

Gestational age at time of ANC booking was collected to determine whether the pregnant women started ANC within the first trimester of pregnancy according to guidelines and recommendations. In this study, high ANC initiation is seen between week 20 and 28 weeks for both districts: 75% in Senqu and 86.1% in Walter Sisulu. The findings are similar to a study conducted in Nigeria by Akeju, Oladapo, Vidler, Akinmade, Sawchuck, Qureshi, Solarin, Adetoro & von Dadelszen (2016:68) on determinants of health care seeking behaviour during pregnancy in Ogun State, concluded that respondants did not consider their gestational age, their primary reason for booking closer to delivery was to collect antenatal card and avoid health care workers from shouting at them during labor for not booking.

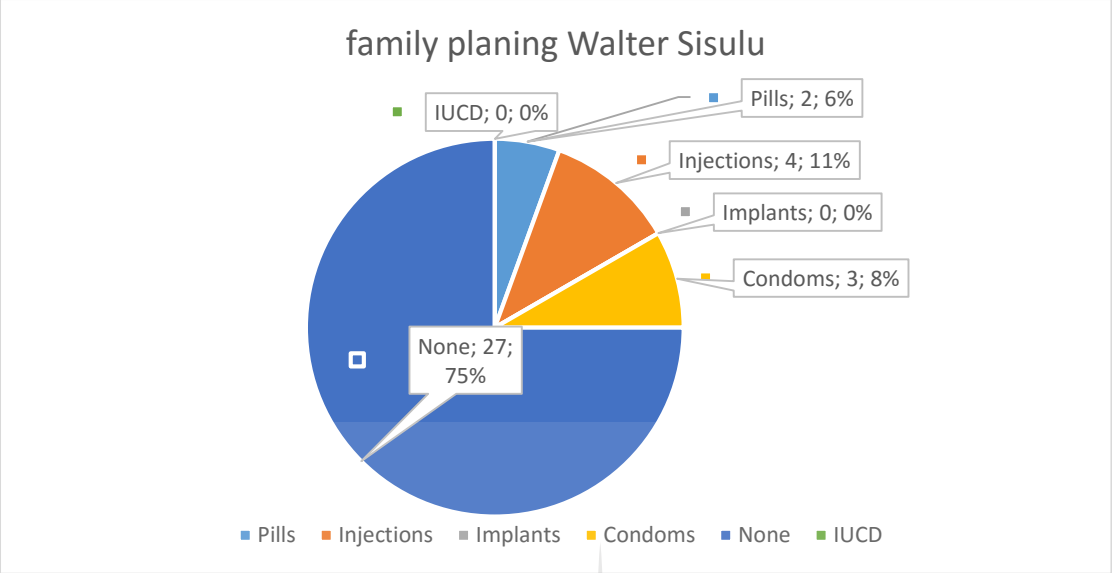
Table 2: Obstetric characteristics of participants

Characteristics	Walter-Sisulu n (%)	Senqu n (%)
Parity (number of children)		
Nulliparous	27 (75%)	52 (61.9%)
1 or more	9 (25%)	32 (38.1%)
Gravidity (number of pregnancies)		
1	28 (77.8%)	50 (59.5%)
2	6 (16.7%)	14 (16.7%)
3 or more	2 (5.5%)	20 (23.8%)
Antenatal care entry		
20-28 weeks	31 (86.1%)	63 (75%)
28-36 weeks	4 (11.1%)	18 (21.4%)
36-40 weeks	1 (2.8%)	3 (3.6%)
Age of last child		
1 - 2 years	11 (30.5%)	15 (17.8%)
3 and older	5 (13.8%)	21 (25%)

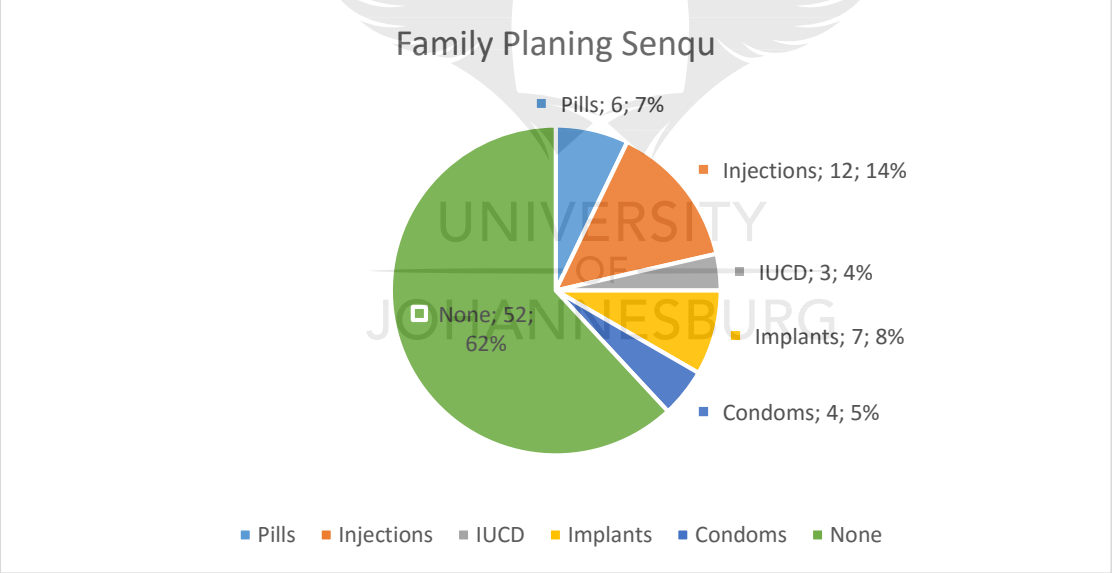
Pie chart: Family planning characteristics of participants

The study found that the majority of participants did not use any form of family planning: 75% in Walter Sisulu and 61.9% in Senqu. In particular, teenage mothers were not using family planning**.** Thus, 72.5% (n = 86) indicated that the pregnancy was unplanned, while 27.5% (n = 33) had planned the pregnancy. It appears that there is little awareness of family planning in these rural areas. Similar results were obtained from the study conducted by Matyukura (2014:91) on knowledge and utilisation of

antenatal care services by pregnant women at a clinic in Ekurhuleni ,teenage mothers showed little information on the use and availability of contraceptives.



Pie chart 1: Family planning parameters in Walter Sisulu



Pie chart 2: Family planning parameters in Senqu

4.5 Comparison of the Prevalence of Late Antenatal Care Attendance between Water Sisulu and Senqu

The prevalence of late ANC attendance was 72% for Senqu and 68.6% for Walter Sisulu. There was thus a higher prevalence of late ANC booking among rural residents from Senqu than in semi-rural Walter Sisulu. The findings also show a high late ANC booking among uneducated, low-income households and multiparous women in Senqu compared to the participants in Walter Sisulu.

4.6 Reasons for Late Antenatal Care Booking

The WHO recommends that pregnant women should go for their first ANC visit in the first trimester (WHO, 2016:12). Also, according to the South African maternal guidelines, pregnant women are encouraged to book for ANC as early as the first missed menstrual period, before 20 weeks (DOH, 2016:20-28). According to Ndidi and Oseremen (2015:49, 50), some of the reasons given by pregnant women in their study were rooted in misconceptions about and ignorance of the importance of ANC. Similar reasons were given by a few respondents in this study. Table 3 shows predictors of reasons for late ANC attendance of pregnant women who participated in the study.

Table 3: Predictors of reasons for late ANC attendance

Characteristics	Walter Sisulu n (%)	Senqu n (%)
Parity		
Nulliparous	18 (50%)	43 (51.2%)
1-2 children	8 (22.2%)	2 (2.4%)
3 or more children	3 (8.3%)	19 (22.6%)
Gravity		
1	20 (55.5%)	39 (46.4%)
2	5 (13.9%)	4 (4.8%)
3 or more	2 (5.5%)	18 (21.4%)

Inadequate knowledge		
Yes	5 (13.9%)	36 (42.8%)
No	31 (86.1%)	48 (57.1%)
Unintended pregnancy		
Yes	17 (47.2%)	48 (57.1%)
No	19 (52.8%)	36 (45.2%)
Public health factors		
Distance	3 (8.3%)	32 (38.1%)
Long waiting time	24 (66.6%)	58 (69%)
Attitude of health workers	21 (58.3%)	47 (55.9%)
Privacy	9 (25%)	15 (17.8%)
Community barriers		
Misconceptions	10 (27.7%)	28 (33.3%)
Cultural beliefs	6 (16.7%)	33 (39.3%)
Travelling time		
Yes	8 (22.2%)	33 (39.3%)
No	28 (77.8%)	45 (53.6%)
Inadequate health facilities		
Yes	4 (11.1%)	48 (57.1%)
No	32 (88.9%)	36 (42.8%)
High costs		
Yes	15 (41.7%)	51 (60.7%)
No	21 (58.3%)	33 (39.3%)

4.6.1 Attitude of health care workers

The majority of the participants in both Senqu (55.9%) and Walter Sisulu (58.3%) agreed that health care workers' attitude strongly determined when they started ANC booking. They described health care workers as lazy and unprofessional. Three said that health care workers did not respect their private information and used it to embarrass them. This finding correlates with a study conducted by Ramprakash, George and Benjamin (2017) who found that women would rather choose a clinic outside their neighbourhood in order to keep their private information confidential.

4.6.2 Accessibility of antenatal care services

The majority of women (57.1%) in Senqu reported that the health care facilities were overburdened and lacked health care personnel to assist them. The women (69%) in Senqu reported long waiting times which discouraged them from booking ANC early. Twenty women from this area added that they travelled more than 1:30 hours to the town clinic as they didn't want to make use of the mobile clinic as it had no privacy and where they were belittled by the health carers. Participants from Water Sisulu indicated that they do not get time off from work and the clinic hours do not accommodate them. Participants from both areas complained about the long waiting times and lack of working staff.

4.6.3 Planned and unplanned pregnancy

It was found that 51.1% of the women in deep rural Senqu who had an unplanned pregnancy booked late. The majority of these women were teenage mothers who explained that they found it difficult to tell their parents that they were pregnant and they were embarrassed that they did not know who the father of the unborn child was. In the case of the participants from Walter Sisulu, 47.2% of those who experienced an unplanned pregnancy delayed booking due to a lack of awareness of the bodily changes and confusion due to the use of contraceptives. These findings correlate with a study conducted in Kenya where unexpected pregnancy was found to lead to late ANC booking (Ochaka & Gichuhi, 2016:6).

4.6.4 Age and parity

In both areas it was found that there was a high rate of late booking in the age group 18-20 years, mostly by first-time mothers compared to second-time mothers. Teenage mothers said that they booked late due to fearing rejection by their parents and losing a year at school. Second-time mothers in both areas (Walter-Sisulu: 22.2% and Senqu: 2.4%) saw ANC booking as unnecessary and a waste of time.

4.6.5 Socio-economic factors

Senqu experienced poor socio-economic conditions with poor infrastructure compared to Walter Sisulu. Thirty-three women in Senqu reported that their village had only two buses. Thus, if the women missed it they were unable to go to the clinic. Furthermore, 60.7% of the participants from Senqu mentioned that transport costs to the clinic were unaffordable for them. However, 58.3% of the participants from Walter Sisulu disagreed that high costs influenced their decision to book for ANC.

4.6.6 Education and knowledge

Of the educated participants from Walter Sisulu, 86.1% strongly disagreed that education and knowledge prevented them from booking early. While 57.1% of the participants from Senqu who were uneducated mentioned that they were unaware of the importance of the timing of an ANC booking. They believed that it was unimportant and that there was no benefit to booking ANC, and that it was the mother`s choice whether to book or not. They added that booking late meant fewer clinic visits, therefore fewer costs involved and not so much waiting in long queues. Seven of the participants booked late due to their fear of HIV testing. They were not informed about the reasons for HIV testing and the importance of knowing your HIV status in pregnancy.

4.6.7 Cultural influence

The majority of women (39.3%) from Senqu showed stronger cultural beliefs than those from Walter Sisulu (16.7%). Sixteen woman from Senqu indicated that it was

prohibited by their culture to disclose pregnancy within the first trimester. They said that the ancestors needed to accept the pregnancy first and protect the unborn baby from harm such as witchcraft. This finding correlates with a study conducted in Thino village by Maputle, Lebese, Khoza, Shilubane &Netshikweta (2013:132), where it was found that the pregnant women waited to receive advice from the elders before booking for ANC. Additionally, misconceptions were higher in Senqu (33.3%) than in Walter Sisulu (27.7%). For instance, woman believed disclosure in their 2nd trimester to avoid suffering witchcraft that could harm her pregnancy

4. 7 Discussion of Results

According to the District Health Information System (1 April 2016 - 31 March 2017), there were 240 women who started antenatal care after 20 weeks of gestation. The results of this study show that the respondents in Joe Gqabi started ANC late despite the free antenatal services offered by government. The findings of this study are in line with a study conducted by Munguambe et al. (2016) on barriers and facilitators to health care seeking behaviours in pregnancy in rural communities of southern Mozambique. That study concluded that despite the free antenatal services and efforts made by the Mozambique government to increase access to health care, pregnant women still booked late for ANC.

The majority of respondents in this study (84%) strongly agreed with the fact that long waiting queues was one of the reasons they attended antenatal care late. This was a deep concern in Senqu. A cross-sectional survey on psychosocial factors associated with early initiation and frequency of antenatal care visits in a rural and urban setting in South Africa (2016) found that respondents do not have time for long queues as they have their daily duties to attend to. Additionally, a study conducted in Uganda by Kawungezi et al. (2015:133) on attendance and utilization of antenatal care (ANC) services found that most women spend most of their time caring for children, collecting water or fuel, doing household chores and trading and do not have time to spend on their own health.

Furthermore, 48% of the respondents in the current study strongly agreed they delayed antenatal attendance due to a lack of information and awareness of the importance of the timing of ANC booking. Thus a lack of knowledge was a determining

factor among the uneducated women. Akeju et al. (2016:70) conducted a study on the determinants of health care seeking behaviour during pregnancy in Ogun, Nigeria, and found that uneducated women ignored signs of labour, and were often confused about the signs of pregnancy such as irregularities in their menstrual cycle.

Interestingly, 78,9% of the respondents strongly agreed that the reason why they attended late was due to the attitude of health care workers. This finding is supported by a study conducted in the Nelson Mandela Metropolitian municipality by Rall & James (2015:16). In the study pregnant women perceived midwives as lazy, unapproachable and impolite, and were thus discouraged from booking early for antenatal care.

Moreover, 42% of the respondents strongly agreed that the poor conditions of the clinics, a lack of privacy, overcrowding and long distance travel were the reasons for their late booking. The findings are supported by a study conducted by Visagie and Schneider (2014:7) on the implementation of the principles of primary health care in a rural area in South Africa, where they found that poor infrastructure and understaffing were factors that hindered the effective running of health services in the area. However, 50% of the participants, mainly from Walter Sisulu, disagreed that the reason for their late booking was because of long-distance travel, as the clinics were within walking distance and they had different options within their sub-district.

It was also found that 64% of the respondents had an unplanned pregnancy and this delayed antenatal booking as they had to decide whether they should keep the baby or not. In a study by Ochaka and Gichuhi (2016:6) a similar finding was made – if the pregnancy is unwanted this is associated with late ANC booking compared to a planned pregnancy.

The study further established cultural influence as a barrier to antenatal booking, particularly in deep rural Senqu. This could be because cultural beliefs are strongly entrenched and still strictly followed in the deep rural areas. Therefore it is possible that the high late ANC attendance is due to a cultural norm rather than a misconception. The study findings are supported by a study conducted by Andrew et al. (2014:210) which found that culture and religion influence antenatal care attendance and that practices attached to these beliefs tend to delay ANC initiation. Furthermore, women with high religiosity may feel less in need of assistance during

pregnancy because they trust in their cultural and religious practices in ensuring a healthy pregnancy.

Lastly, material age was also associated with late ANC booking. Teenage mothers strongly agreed that being young and dependent on their parents affected how they responded to the signs of pregnancy. Mothers who were older, on the other hand, strongly disagreed that age influenced their timing to book ANC. Thus, in this study it was found that there was a high rate of late ANC booking among women of high parity and gravidity in both areas. This is in line with a study conducted in rural Pakistan by Ghaffar, Pongpanich, Ghaffar, Chapman. & Mureed (2015:679) which found that as parity increased, the less likely the women were to book ANC on time. The reason for this might be that previous pregnancies are associated with increased confidence. In another study conducted in Ethiopia by Yilala (2015:44) on the assessment of late initiation of antenatal care and associated factors among antenatal attendees in selected health centres of Addis Ababa it was found that 96.6% of the respondents who booked late had had pregnancies before.

4.8 Conclusion

This chapter presented, interpreted and discussed the results of the study using descriptive statistics. The results of the study indicate that women are still initiating ANC late in the rural area of the Joe Gqabi district.

CHAPTER 5

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses the conclusions, limitations and recommendations for this study. The purpose of this study was to establish the reasons given by pregnant women for late initiation of antenatal booking after 20 weeks in the Joe Gqabi district in the Eastern Cape.

5.2 Conclusions

According to the findings of the study, it is clear that late antenatal attendance remains high in rural areas. Factors such as education, attitude, culture, long queues and poor rural health infrastructure contribute to late ANC booking. Pregnant women in Walter Sisulu and Senqu pointed out the above factors as barriers that prevented them from starting ANC within the first trimester of their pregnancy. The study was thus successful in determining the reasons why pregnant women initiate antenatal care late. Recommendations will be made below that will assist in and improve early antenatal care booking.

From the results presented in chapter 4, the conclusion can be drawn that the majority of the patients are ignorant about the best time to book for antenatal care. This ignorance has been reported in several other studies. The findings support the need for continuous health education on the multiple benefits of preventive and curative antenatal care. This study also revealed the cardinal role of the husband and elders in deciding on the right time for booking antenatal care. It is thus important to involve the family in this regard.

The common reasons given for late booking in this study are similar to those found in a qualitative study conducted in Pakistan by Bin Nisar, Aurangzeb, Dibley & Alam (2016). These were that the women experienced no problems in the first trimester and they tried to avoid booking too many visits which they also found time consuming. It is thus important to pursue the newer method of focused antenatal care which prescribes

four visits for low-risk women. Other reasons for booking late included trying to hide the pregnancy and to prevent harm (in terms of witchcraft) to the baby. This has also been noted study conducted on determinants of health care seeking behaviour during pregnancy in Ogun State, Nigeria (2016). These findings underline the need for continuous health education to disabuse pregnant women about witchcraft.

The study also found that the high travelling costs and long distances to be travelled to get to a clinic are important factors in the late booking for antenatal care. It is therefore important that there is a strong political will to subsidise maternity costs. In addition, the level of education and knowledge were found to be important factors and positively influenced the gestational age at booking. This is similar to a study conducted by Ewnetu, Assegid & Wondafrash (2015) on factors associated with late antenatal care initiation in an Ethiopian clinic found that, the level of education significantly favoured early booking as the more educated the women are the more they feel empowered and understand the benefit of early booking for antenatal care. Lastly, increasing parity was also found to predispose pregnant women to late booking in this study. Most of the multiparous women appeared to be overconfident, believing that having delivered many times previously, they knew everything there was to know about pregnancy and thus did not feel a need to book for antenatal care early.

Efforts should be made to introduce focused antenatal care as this entails fewer visits and is found to be more acceptable to women. Recommendations are outlined below based on the aim to improve antenatal care delivery in particular in the rural areas. The recommendations are aimed to give the policy makers and service providers insight into which issues need to be addressed when promoting an early start to ANC.

5. 3 Limitations of the Study

- Considering that the study was conducted in public and overcrowded clinics, in very hot conditions, it is possible that certain issues might have been underreported. The participants might have been too tired and fatigued waiting in the slow moving queue to provide a true account of their situation.
- The help of the research assistants could have created variances, although they were informed on how to assist participants with the questionnaires. The

interpreters might not have translated the correct meaning of words, leading to incorrect responses.

- The researcher is not fluent in the dominant languages used in Joe Gqabi district, and thus only English was used for the questionnaire for data collection.
- The use of structured questionnaires did not provide respondents with an opportunity to enlarge on their answers.
- The findings of this study cannot be generalised to the entire region of the Eastern Cape but can be generalised across the Joe Gqabi district.

5.4 Recommendations

Based on the study findings, the researcher believes the findings support the evidence that women still initiate ANC late in the rural area, although the service is available and is free. This calls for other forms of media to raise awareness to promote starting ANC early. In addition, findings of this study highlight that most women book late because of a belief that there are no benefit in booking for antenatal care before 20 weeks. This seems to be because antenatal care is viewed primarily as curative rather than preventive in this study population. Community based health education programmes are strongly needed to correct the misconceptions about antenatal care. Furthermore, the researcher is of believe that the following recommendations may lead to an improvement in antenatal attendance and service delivery in the area under investigation.

5.4.1 Recommendation to improve nursing practice

- Antenatal services should be offered daily without restrictions; first-time booking should not be scheduled to take place only on certain days.
- Clinic operating hours should be increased and extended to weekends so that working women can be accommodated. A survey monitoring patient satisfaction should be carried out with all patients as this will help to identify problems and improve service delivery.
- The minister of health should take steps to increase staff and to train more health care workers in order for the clinics and hospitals to be able to deal with

the patients effectively. At least one experienced midwife should be available at every shift, thereby improving quality maternal care.

- Health care workers should be emotionally supported and offered counselling sessions regarding professionalism and ethics.

5.4.2 Recommendation for nursing education

- More campaigns on teenage pregnancy should take place at regular intervals. A health nurse/sister should be in attendance at every high school.
- Continuous in-service training focusing on antenatal care should be provided to all midwives.
- Midwives should be encouraged to attend seminars and prenatal meetings where they can share ideas and their experiences.
- Community and traditional leaders should be empowered and encouraged to be involved in women's health issues. This might help to curb harmful cultural practices.

5.4.3 Recommendations for future research

- This study should be conducted in other districts and provinces to see whether the findings of this research study can be applied to other areas.
- It is recommended that men and community leaders be involved in maternal and child health care programmes, and that ways of getting them involved should be explored.

5.5 Concluding Remarks

The importance of using ANC services within the first trimester of pregnancy cannot be emphasised enough in order to prevent maternal adverse events. This will benefit not only the fetus, but also the mother and enable the proper management of the women during the maternal period. The conclusions derived from this study support the assumptions that there are valid reasons that contribute to late antenatal booking such as pregnant women ignoring the signs of pregnancy, poor infrastructure, lack of privacy in health facilities, long waiting periods and cultural beliefs.

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ANNEXURES

APPENDIX A

DEPARTMENT OF nursing
RESEARCH STUDY INFORMATION LETTER

2018 April 30

Good Day

My name is LUTENDO MUKWEVHO **I WOULD LIKE TO INVITE YOU TO PARTICIPATE** in a research study on REASONS FOR LATE INITIATION OF ANTENATAL CARE IN JOE GQABI DISTRICT IN EASTERNCAPE PROVINCE

Before you decide on whether to participate, I would like to explain to you why the research is being done and what it will involve for you. I will go through the information letter with you and answer any questions you have. This should take about 10 to 20 minutes. The study is part of a research project being completed as a requirement for a Master's Degree in Advance Midwifery nursing science through the University of Johannesburg.

THE PURPOSE OF THIS STUDY is to investigate reasons of late initiation of antenatal services by pregnant women residing in Joe Gqabi district in the Eastern cape.

Below, I have compiled a set of questions and answers that I believe will assist you in understanding the relevant details of participation in this research study. Please read through these. If you have any further questions I will be happy to answer them for you.

DO I HAVE TO TAKE PART? No, you don't have to. It is up to you to decide to participate in the study. I will describe the study and go through this information sheet. If you agree to take part, I will then ask you to sign a consent form.

WHAT EXACTLY WILL I BE EXPECTED TO DO IF I AGREE TO PARTICIPATE? Before participation, you are required to sign consent form. Answer and fill in questionnaire, those who do not read and writer, the researcher will be available to assist with answering questionnaire.

WHAT WILL HAPPEN IF I WANT TO WITHDRAW FROM THE STUDY? If you decide to participate, you are free to withdraw your consent at any time without giving a reason and without any consequences. If you wish to withdraw your consent, you should inform me as soon as possible.

IF I CHOOSE TO PARTICIPATE, WILL THERE BE ANY EXPENSES FOR ME, OR PAYMENT DUE TO ME: You will not be paid for you participation in the study and you will not bear any expenses.

RISKS INVOLVED IN PARTICIPATION: The study does not involve any obvious anticipated risks to you and you pregnant.

BENEFITS INVOLVED IN PARTICIPATION: There are no monetary benefits for participating in this study. However, by participating in the study, you will contribute to information that will assist ministry of health and policy makers to consider community opinions as they formulate policies

WILL MY PARTICIPATION IN THIS STUDY BE KEPT CONFIDENTIAL? Yes. Names on the questionnaire/data sheet will be removed once analysis starts. All data and back-ups thereof will be kept in password protected folders and/or locked away as applicable. Only I or my research supervisor will be authorised to use and/or disclose your anonymised information in connection with this research study. Any other person wishing to work with you anonymised information as part of the research process (e.g. an independent data coder) will be required to sign a confidentiality agreement before being allowed to do so.

OR

WILL MY TAKING PART IN THIS STUDY BE ANONYMOUS? Yes. Anonymous means that your personal details will not be recorded anywhere by me. As a result, it will not be possible for me or anyone else to identify your responses once these have been submitted.

WHAT WILL HAPPEN TO THE RESULTS OF THE RESEARCH STUDY? The results will be written into a research report that will be a assessed. In some cases, results may also be published in a scientific journal. In either case, you will not be identifiable in any documents, reports or publications. You will be given access to the study results if you would like to see them, by contacting me.

WHO IS ORGANISING AND FUNDING THE STUDY? The study is being organised by me, under the guidance of my research supervisor at the Department of Nursing in the University of Johannesburg. This study has not received any funding

WHO HAS REVIEWED AND APPROVED THIS STUDY? Before this study was allowed to start, it was reviewed in order to protect your interests. This review was done first by the Department of Nursing, and then secondly by the Faculty of Health Sciences Research Ethics Committee at the University of Johannesburg. In both cases, the study was approved.

WHAT IF THERE IS A PROBLEM? If you have any concerns or complaints about this research study, its procedures or risks and benefits, you should ask me. You should contact me at any time if you feel you have any concerns about being a part of this study. My contact details are:

Lutendo Mukwevho

You may also contact my research supervisor:
Prof Anna. Nolte
agwnolte@uj.ac.za
If you feel that any questions or complaints regarding your participation in this study have not been dealt with adequately, you may contact the Chairperson of the Faculty of Health Sciences Research Ethics Committee at the University of Johannesburg:

Prof. Christopher Stein
Tel: 011 559-6564
Email: cstein@uj.ac.za

FURTHER INFORMATION AND CONTACT DETAILS: Should you wish to have more specific information about this research project information, have any questions, concerns or complaints about this research study, its procedures, risks and benefits, you should communicate with me using any of the contact details given above.

Researcher:

Lutendo Mukwevho
<Signature>

APPENDIX B

DEPARTMENT OF NURSING
RESEARCH CONSENT FORM

REASONS FOR LATE INITIATION OF ANTENATAL CARE IN JOE GQABI DISTRICT IN EASTERNCAPE PROVINCE

Please initial each box below:

☐ I confirm that I have read and understand the information letter dated 2018 MAY 30 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

☐ I understand that my participation is voluntary and that I am free to withdraw from this study at any time without giving any reason and without any consequences to me.

☐ I agree to take part in the above study.

Name of Participant	Signature of Participant	Date

Name of Researcher	Signature of Researcher	Date

APPENDIX C

UNIVERSITY OF JOHANNESBURG

DEPARTMENT OF NURSING

RESEARCH QUESTIONNAIRE PERMISSION LETTER

2018 April 30

Dear Sir

Greetings

My name is LUTENDO MUKWEVHO a Masters student at the university of Johannesburg. I would like to ask your permission to use your questionnaire you developed for your thesis research 2012 on factors associated with late antenatal care attendance in selected rural and urban communities of the Copperbelt Province in Zambia. Your questionnaire will be used in my research study to collect data on REASONS FOR LATE INITIATION OF ANTENATAL CARE IN JOE GQABI DISTRICT IN EASTERNCAPE PROVINCE. I will include the copyright in all copies of the instrument.

After the data have been analyzed, if you would be interested an electronic copy of the entire thesis can be made available to you. If you agree, kindly sign below aknowleging your consent and permission for me to use your questionnaire for my study and return the signed form via email.

Sincerely

Lutendo Mukwevho

You may also contact my research supervisor:

Prof Anna. Nolte at agwnolte@uj.ac.za

Approved by:

DR ISAAC BANDA _____ 17/06/2018

Printed name and title Signature Date

REPUBLIC OF ZAMBIA
MINISTRY OF HEALTH
CENTRAL PROVINCE MEDICAL OFFICE
PO BOX 80686, TEL 05 221765 FAX 05 221764, KABWE

17th June 2018

LUTENDO MUKWEVHO

University Of Johannesburg

South Africa.

Dear Ms Mukwevho

Re: Permission to Use Questionnaire for your Research Titled "Reasons for Late Initiation of Antenatal Care in Joe Gqabi District in Eastern Cape Province"

Reference is made to your email dated 12th June 2018 in which you requested for permission to use the questionnaire for my research titled "**Factors Associated with Late Antenatal Care Attendance in Selected Rural and Urban Communities of the Copperbelt Province in Zambia**".

I am glad to inform you that permission has been granted and I wish you the best as you undertake the study. Furthermore, I will be grateful to learn about the findings of your research: kindly share the electronic copy.

Should your Supervisors require further information or clarifications, they should not hesitate to contact me on the details provided below.

Yours sincerely,

Dr Isaac Banda
Public Health Specialist
Email: matembobanda@yahoo.co.uk
Phone +260 977 348 278/+260 966 827 417

APPENDIX D

FACULTY OF HEALTH SCIENCES
RESEARCH ETHICS COMMITTEE

NHREC Registration: REC 241112-035

OUTCOME OF RESEARCH PROPOSAL REVIEW
(RECX$_{1.0}$)

Student/Researcher Name	L Mukwevho	Student Number	216046268
Supervisor Name	Prof AGW Nolte	Co-Supervisor Name	-
Department	Nursing		
Qualification	M9N10Q		
Research Title	Reason for Late Initiation of Antenatal Care in Joe Gqabi District in the Eastern Cape Province		

REC	Date	28 August 2018	Date	3 September 2018
Desm		Minor revision required Approved subject to clarification/revision to supervisor's satisfaction; back to reviewers.		
! Next Steps		▪ Please revise the research proposal as required by the reviewers, then give it to your supervisor to check the revisions. ▪ using the 02a REVISED RESEARCH PROPOSAL SUBMISSION FORM (REC 7.0), respond to each item (i) marked in the reviewer's checklist as No, (ii) any related comments and (iii) each item in the List of Mandatory Changes at the end of the form. Once this is done, sign the REC 7.0 form, along with your supervisor. Submit the REC 7.0 form and a copy of your revised research proposal with changes clearly indicated[1] to the Faculty Administration Office. The revised research proposal must be signed by your supervisor/co-supervisor(s).		

1 -Changes can be indicated with a different font colour ot underlining. Do not use Track Changes.

IMPORTANT: The above steps must be completed, following which an ethical clearance letter will be issued. Research may not begin until you are in possession of an ethical clearance letter. Clearance letters will not be issued after research has begun under any circumstances.

Yours sincerely.

Prof. Christopher Stein
Chairperson: REC

FACULTY OF HEALTH SCIENCES
HIGHER DEGREES COMMITTEE

27 August 2018

TO WHOM IT MAY CONCERN:

Student: MUKWEVHO, L Student
Number: 216

TITLE OF RESEARCH PROPOSAL: Reason for Late Initiation of Antenatal Care in Joe Gqabi District in the Eastern Cape Province

DEPARTMENT OR PROGRAMME•. NURSING

SUPERVISOR: Prof ACW Notte CO-SUPERVISOR:

The Faculty Higher Degrees Committee has scrutinised your research proposal and confirms that it complies with the approved research standards of the Faculty of Health Sciences; University of Johannesburg.

The proposal has been awarded a Code 2B - the assessor would like to see the proposal again. .Attached recommendations were made by the Committee which will add value to your proposal.

Please make these amendments to the satisfaction of your supervisor/s and submit a corrected copy of the proposal to the Faculty Research Administrator after which your clearance number will be issued.

The HDC would like to extend their best wishes to you with your postgraduate studies.

Vice Chair: Faculty of Health Sciences HDC

Tel: 011 559 6550

Email: habrahmase@uj.ac.za

APPENDIX E

Province of the
EASTERN CAPE
HEALTH

Enquiries: Zonwabele Merile

Email: zonwabele.merile@echealth.gov.za

Tel no: 083 378 1202

Fax no: 043 642 1409

Date: 28 September 2018

RE: REASONS FOR LATE INITIATION OF ANTENATAL CARE IN JOE GQABI DISTRICT IN THE EASTERN CAPE PROVINCE.EC_201809_019)

Dear Miss L. Mukwevho

The department would like to inform you that your application for the abovementioned research topic has been approved based on the following conditions:

1. During your study, you will follow the submitted amended protocol with ethical approval and can only deviate from it after having a written approval from the Department of Health in writing.

2. You are advised to ensure, observe and respect the rights and culture of your research participants and maintain confidentiality of their identities and shall remove or not collect any information which can be used to link the participants.

3. The Department of Health expects you to provide a progress update on your study every 3 months (from date you received this letter) in writing.

4. At the end of your study, you will be expected to send a full written report with your findings and implementable recommendations to the Eastern Cape Health Research Committee secretariat. You may also be invited to the department to come and present your research findings with your implementable recommendations.

5. Your results on the Eastern Cape will not be presented anywhere unless you have shared them with the Department of Health as indicated above.

Your compliance in this regard will be highly appreciated.

SECRETARIAT: EASTERN CAPE HEALTH RESEARCH COMMITTEE

APPENDIX F

QUESTIONNAIRE: Serial no. ☐

INTERVIEW FOR PREGNANT WOMEN ATTENDING ANC IN JOE GQABI DISTRICTS

SECTION A

SOCIO-DEMOGRAPHIC DATA

1.Age(Last birthday)……

2. Marital status

1. Married ☐
2. Single ☐
3. Divorced ☐
4. Widowed ☐

3. Occupation

1. Employed ☐
2. Not employed ☐

4. What type of employment (specify)……

5. Religion

1. Christian ☐

2. Muslim ☐

3. Hindu ☐

4. Others …….

6. Level of education

1. Never been to school ☐

2. Primary ☐

3. Secondary ☐

4. College/university ☐

SECTION B:

OBSTETRIC INFORMATION

7. Parity ……41

8. Gravidity ……..

9. Age of the last child ……..

10. How old was your pregnancy when you made

your first ANC visit?..... ……

(Age of pregnancy in weeks)

11. What family planning method did you

use before you fell pregnant?

1. Pills ☐

2. Injections ☐

3. IUCD ☐

4. Implants ☐

5. Condoms ☐

6. Breastfeeding ☐

7. Nothing

12. What were the reasons for stopping using family planning

methods?……
……

SECTION C

13. List factors that influenced you to book for antenatal

……

……

……

.

14. What hindered you to book for ANC early?

(before 20th week of pregnancy)

1. Pregnancy was unintended ☐

2. No knowledge about ANC ☐

3. Not satisfied with service ☐

4. No benefits of starting early ☐

5. Others (specify……)

15. Would being tested for HIV prevent you from attending ANC

1. Yes ☐
2. No ☐

16. Who motivated you to book for ANC?

1. Husband/spouse ☐
2. Friend ☐
3. Media ☐
4. Health provider ☐
6. Others (specify) ……..

17. What was/is your husband's attitude towards ANC?

1. Supportive ☐
2. Not supportive ☐
3. Don't know ☐

If supportive, how were you supported?

……..

……

18. Do you think it would be a good idea for husbands to be accompanying pregnant women to ANC?

1. Yes ☐
2. No ☐

Give reasons for your answer ……

……

19. Which of the following factors do you think could prevent you from attending ANC early?

1. Distance to ANC services ☐
2. Long waiting time ☐
3. Negative attitude of health providers ☐
4. Lack of privacy ☐

20. What community influence could stop you attending ANC

1. Misconceptions on ANC ☐
2. Value attached to ANC (Community norm) ☐
3. Cultural beliefs ☐

21. Could High cost of accessing ANC prevent you from booking early?

1. Yes ☐
2. No ☐

22. Could Traveling time hinder you from accessing ANC on time?

1. Yes ☐
2. No ☐

23. Could inadequate health facilities prevent you from accessing ANC on time?

1. Yes ☐

2. No ☐

24. What strategies could be put in place to enhance ANC attendance?

……

……

……..